

RESEDA ALBA L. Several plants were found growing along the bank of the San Luis Rey River across from Pala on April 25, 1935 (11302).

GAURA SINUATA Nutt. Three stations for this species are represented by specimens in our herbarium, but it has also been observed at several additional localities. It was first reported in July, 1930, when W. V. Shear collected specimens at Carlsbad (3355). It was found growing along the highway two miles north of Lake Hodges on March 6, 1934 (3354), and was thoroughly established in a field at Santa Ysabel on July 10, 1935 (11940).

ECHIMUM PLANTAGINEUM L. Not previously reported in California, this species was found growing abundantly in a meadow and around a spring by the roadside near DeLuz, May 1, 1935 (11321).

LYCIUM HALIMIFOLIUM Mill. Collected by Charles F. Harbison in the bed of the Tijuana River about two miles from its mouth, August 19, 1934.

Natural History Museum, Balboa Park,
San Diego, California,
January 30, 1936.

NEW RECORDS OF VASCULAR PLANTS IN WASHINGTON

GEORGE NEVILLE JONES

Even in a region which has been as well botanized as Washington, there are many species of vascular plants whose known occurrence rests upon a single collection or a more or less definite statement. The following notes record eleven species of vascular plants not hitherto ascribed to this state. These include six recent immigrants and five indigenous species. The records are based on specimens in the Herbarium of the University of Washington.

ANEMONE LUDOVICIANA Nutt. Gen. Am. Pl. 2: 20. 1818. This species is abundant on the prairies and plains east of the Rocky Mountains. Although recorded by Rydberg (3, p. 288) as occurring in Washington, until very recently there have been no specimens in local herbaria to substantiate the record. This spring, however, a number of plants of this anemone were sent to the University of Washington to be identified. The collection data are as follows:

Chelan County: foothills near Wenatchee, May 15, 1936,
Doris Mullen.

CLEMATIS VITALBA L. Sp. Pl. 544. 1753. During the last thirty years or so this European species of *Clematis* has become well established in various localities in western Washington. It is quite common at Seattle and Tacoma. It is sometimes mistaken for the indigenous *C. ligusticifolia* Nutt. of the Upper So-

noran zone east of the Cascade Mountains, from which it differs in its perfect flowers, more densely pubescent sepals, and less-notched leaflets. The following Washington specimens are at hand:

San Juan County: Roche Harbor, July 11, 1904, *A. S. Pope*; King County: Seattle, *Jones 8567*; Fall City, *Jones 9426*; Pierce County: Tacoma, *Jones*, December 23, 1927.

POLANISIA TRACHYSPERMA Torr. and Gray, Fl. N. Am. 1: 669. 1840. This species was noted (as *P. graveolens*) in the report of the Wilkes Expedition (5, p, 235) as occurring along the Walla Walla River in what is now the state of Washington. Piper dismissed it from the "Flora of Washington" (2, p. 307) with the remark that "There are no herbarium specimens of this plant from Washington to justify its inclusion in the flora." The record of the following collection will serve to establish the actual occurrence of the plant in Washington at the present time:

Walla Walla County: gravelly bank of the Columbia River near the mouth of the Walla Walla River, June 22, 1934, *Jones 5035*. The specimens show both flowers and fruit. The general range of this species is from British Columbia to Texas and as far east as Iowa and Saskatchewan.

ROSA RUGOSA Thunb. Fl. Jap. 213. 1784. At the time of the publication of my recent paper on the species and varieties of *Rosa* (1), *R. rugosa* was known to me from only one locality in Washington. I concluded, therefore, that this species was only an incidental "garden escape" and not of sufficient importance to be included in the rose flora of the state. Since that time, however, several additional reports of this rose have come to my attention. Apparently the species is becoming well established in various localities in western Washington, especially near the seashore. The following collections are at hand:

Island County: Useless Bay, Whidby Island, June 2, 1934, *Jones 6133*. Kitsap County: Restoration Point, Bainbridge Island, April 19, 1936, *Jones 8734*.

VIOLA LANCEOLATA L. Sp. Pl. 934. 1753. The recent discovery of this violet in western Washington extends the known range of the species a thousand miles to the westward. It was previously known to range from Nova Scotia to Florida and westward to Minnesota, Nebraska, and Mississippi (4, p. 554). A report of such a remarkable extension of range is, I am aware, not above suspicion; but there is not the slightest doubt as to correctness of the identification of the plants from western Washington. That they could be adventive here is possible, though from the ecological evidence, highly improbable. They occur in abundance in several rather widely separated localities, in habitats apparently never disturbed by human activity. That they have not been previously discovered here is probably due to the fact that they are inconspicuous, except when in flower, and

then most likely have been mistaken for *V. pallens* (Banks) Brainerd, or even for *V. palustris* L., both common species in the vicinity. In western Washington, *Viola lanceolata* may be a relictual species; at least its habitat is on the outwash plains near the southern limit of the Pleistocene glaciation.

Pierce County: in marshy ground between Tacoma and Roy, April 27, 1936, *Jones 8774*.

LEDUM GLANDULOSUM Nutt. Trans. Am. Phil. Soc. 8: 270. 1843. This species ranges from British Columbia to California and eastward to Wyoming. It is known from several localities in Okanogan, Chelan, and Kittitas counties in eastern Washington, but has been unknown, until very recently, from the western side of the Cascade Mountains. This Labrador tea may be distinguished from the common *L. groenlandicum* Oeder by its oblong or oval plane-margined leaves which are green and glabrous on both sides. It has been collected at the following locality in western Washington:

King County: Delta Lake, *J. M. Broadbent*, August 5, 1935. Mr. Broadbent, a student of botany at the University of Washington, reports the shrub to be fairly abundant on moist ledges on the mountainside near the outlet of the lake. Prominent among associated species were *Rhododendron albiflorum*, *Salix* sp., *Vaccinium macrophyllum*.

SWERTIA PERENNIS L. Sp. Pl. 226. 1753. Not hitherto collected in Washington, this gentianaceous perennial is known to occur in British Columbia and Alaska, and in the Wallowa Mountains in northeastern Oregon (August 25, 1898, *Cusick 2100*). The first record of the collection of this plant in Washington is as follows:

Snohomish County: on talus, Twin Lakes, altitude 4000 feet, (in full bloom) September 2, 1935, *J. M. Broadbent*.

SOLANUM ROSTRATUM Dunal, Hist. Solan. 234. 1813. Adventive in Benton County: Benton City, September 16, 1936, *Harold Stringer*.

GALIUM VERUM L. Sp. Pl. 107. 1753. Long since naturalized in the eastern half of North America, this Eurasian species can now be listed as adventive in western Washington on the basis of the following collections:

King County: weed in lawn, Seattle, October 20, 1932, *Jones 4314*; October 10, 1934, no. 6117. This is the only uncultivated species of *Galium* in Washington with yellow flowers. The plants are perennial, with linear, deflexed leaves in whorls of six or eight.

VERONICA CHAMAEDRYIS L. Sp. Pl. 13. 1753. This is a perennial with the stems pubescent in two lines, the leaves subsessile, cordate, incisedly crenate, and the flowers blue, 4-6 mm. broad, appearing in May. The plant has been noted in several

places in Seattle, where it occurs chiefly as a weed in lawns, introduced, probably, with grass seed. It is represented by the following collection:

King County: Seattle, weed in lawn on the campus of the University of Washington, May 2, 1933, *Jones 4374*.

TARAXACUM LAEVIGATUM (Willd.) DC. Cat. Hort. Monsp. 149. 1813. Readily distinguishable from the more common *T. officinale* Weber by its bright reddish achenes and the leaves dissected almost to the midvein, this species is now established in several places in Washington. Probably it is frequently mistaken for *T. officinale* and for that reason is rarely collected.

King County: Seattle, March 17, 1934, *Jones 8721*.

University of Washington Herbarium,
Seattle, Washington,
October 20, 1936.

LITERATURE CITED

1. JONES, G. N. The Washington species and varieties of *Rosa*. Madroño 3: 120-135. 1935.
2. PIPER, C. V. Flora of the state of Washington. Contr. U. S. Nat. Herb. 11: 1-637. 1906.
3. RYDBERG, P. A. Flora of the Rocky Mountains. 1917.
4. ———. Flora of the prairies and plains. 1932.
5. TORREY, J. U. S. Exploring Expedition 17 (Wilkes Expedition): 205-514. 1874.

REVIEWS

The Genus Arabis L. in the Pacific Northwest. By REED C. ROLLINS. Research Studies of the State College of Washington, Volume IV, Number 1. Pp. 52, with 15 figures. Pullman, Washington, 1936. \$50.

Perhaps no western group of flowering plants has been in a more confused state than has the genus *Arabis*, and all systematists will be glad to know that an attempt has been, and is being, made to set this wing of the cruciferous house in order. More than sixty species have been described from, or attributed to, the states of Washington, Oregon and Idaho—Greene, Howell and Piper each having added his quota. Mr. Rollins has examined these critically, submitting them to the important test of geographical significance. After four species have been excluded, only twenty-one species and eleven varieties survive his scrutiny. The classical criterion of the uniseriate versus the biseriate condition of the seeds is examined and explained by observation of ontogenetic development. The kind of pubescence, when present, is found to have considerable diagnostic value, whereas degree of pubescence is significant only within broad limits.

Fifteen nearly full page original line drawings by Mr. Rollins depict representative and usually confused species, and two maps graphically show the geographical basis of this study. A number of subspecific populations, which have previously posed as